

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
17 November 2005 (17.11.2005)

PCT

(10) International Publication Number
WO 2005/109127 A1

(51) International Patent Classification?: G05B 19/042,
23/02

Mark, J. [US/US]; 1503 Blackjack Drive, Round Rock,
TX 78681 (US).

(21) International Application Number:
PCT/US2005/015556

(74) Agent: STANTON, Gregory, E.; Marshall, Gerstein,
& Borun LLP, 233 S. Wacker Drive, 6300 Sears Tower,
Chicago, IL 60606-6357 (US).

(22) International Filing Date: 4 May 2005 (04.05.2005)

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,

(25) Filing Language: English

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,

(26) Publication Language: English

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,

(30) Priority Data:
60/567,980 4 May 2004 (04.05.2004) US

GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,

(71) Applicant (for all designated States except US): FISHER-
ROSEMOUNT SYSTEMS, INC. [US/US]; 12301 Research Blvd., Research Park Plaza Bldg.111, Austin, TX
78759 (US).

KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,

(72) Inventors; and

MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM,

(75) Inventors/Applicants (for US only): BLEVINS, Ter-
rence, L. [US/US]; 3801 Carmel Drive, Round Rock, TX
78681 (US). SAMSON, J., Dashene, Aren. NIXON,

PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY,

TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,

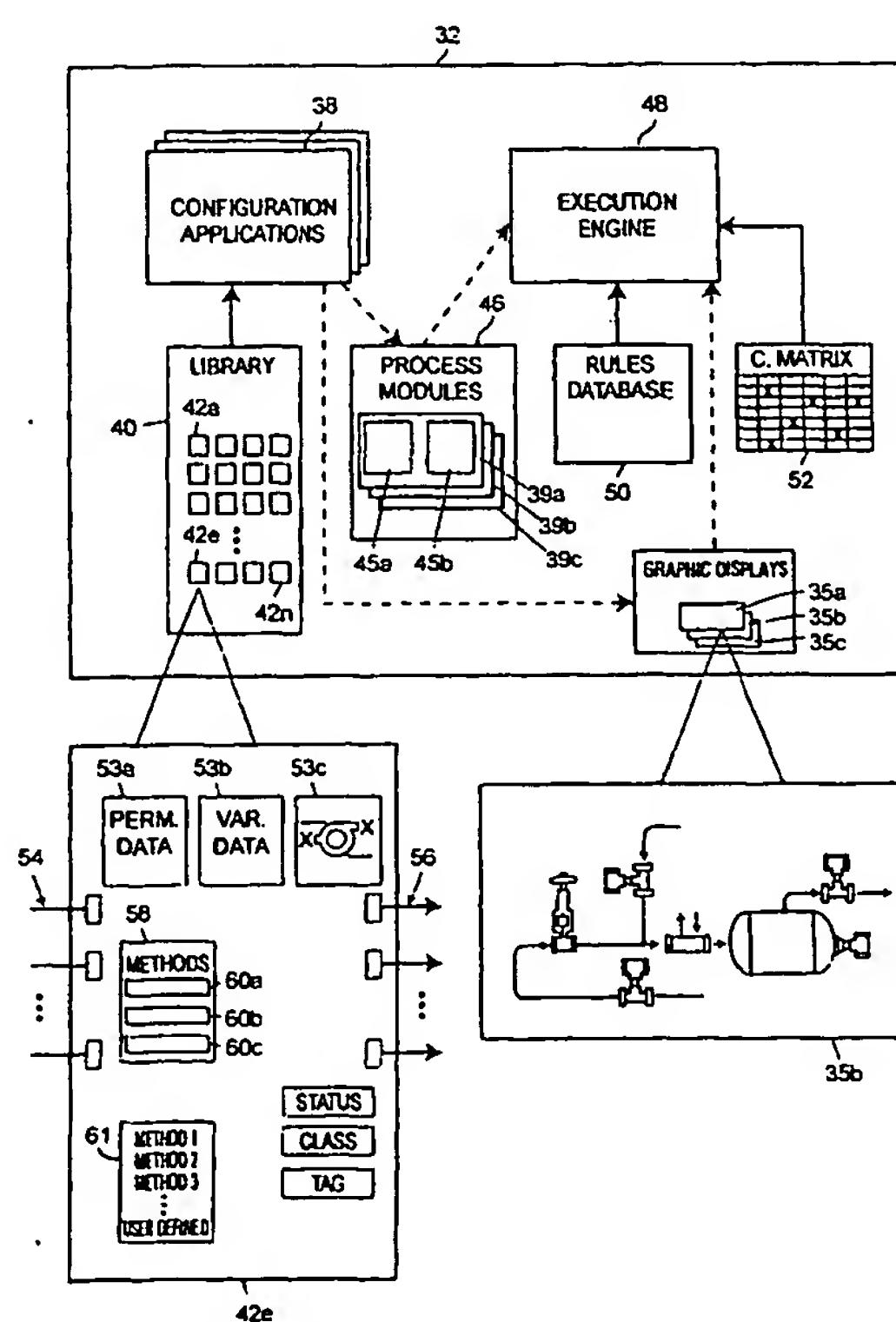
ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: INTEGRATION OF PROCESS MODULES AND EXPERT SYSTEMS IN PROCESS PLANTS

WO 2005/109127 A1



(57) Abstract: A process control system element for use in a process plant includes a process module, which represents a logical unit in the process plant, integrated with an expert module capable of detecting and/or mitigating abnormal situations associated with the logical unit. The process module may include a plurality of process objects, each process object representing a corresponding physical entity in the process plant. At least some of the process objects may include simulation capabilities to simulate the corresponding physical entities. The expert module may be adapted to detect at least one abnormal situation associated with the logical unit, and may be communicatively coupled to the process module to receive data from the process module during operation of the process module. Because the expert module is integrated with the process module, a user can more easily configure the expert module to detect and/or mitigate abnormal situations associated with the logical unit.



European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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Published:

— *with international search report*